Pharmacist-led Medication Management and Compliance Clinic in a General Out-Patient Clinic through Multidisciplinary Approach

Tam HM(1), Chiu WY(1), Wong C(1), Wong CY(1), Wong MY(2), Fan SY(1), Leung SY(1)

(1) Pharmacy Department, Pamela Youde Nethersole Eastern Hospital
(2) Family Medicine & Primary Healthcare, Hong Kong East Cluster

Keywords:
Medication Management and Compliance Clinic
Drug compliance
Pharmacist
MMAS-4
Counselling

Introduction
The pharmacist-led Medication Management and Compliance Clinic (MMCC) aimed to improve drug compliance and patient clinical outcomes through assessment of drug-taking behaviour, medication reconciliation, counselling, and pharmaceutical care planning.

Objectives
To investigate the impact of pharmacist-led MMCC on patients’ drug compliance and therapeutic outcomes.

Methodology
This is a retrospective review of the clinical impact of pharmacist-led MMCC during the period 1 May to 31 October 2017. Patients were recruited to attend the MMCC by either GOPC doctors’ referrals or MMCC pharmacists. Inclusion criteria were patients who (1) have polypharmacy (>4 chronic medications), (2) potentially have compliance problem as assessed by doctors, (3) suffered from hypertension, diabetes, and/ or dyslipidaemia who did not achieve treatment goals, (4) are recently admitted to hospital, and (5) were taking high-risk medications (e.g., anticoagulants). Drug compliance was assessed by using the 4-item Morisky Medication Adherence Scale (MMAS-4). MMCC follow-up would be arranged for patients with drug compliance or drug-related problems. Pharmacists would carry out medication reconciliation, and provide a pharmaceutical plan and therapeutic lifestyle modifications whenever appropriate.

Result
A total of 1978 patients (992 male and 986 female, mean age 71.5, SD=11.26) attended the MMCC during the review period. On average, they were taking seven medications. Doctors referred seven hundred and sixty-two patients (33.5%).
Two hundred and fifty-five (13%) patients had at least one MMCC follow-ups, of which 45 patients (45/255: 18%) had poor drug compliance (defined as an MMAS-4 score <2) on the initial visit. On the second visit, 78% (35/45) of the poorly compliant patients had an improvement in drug compliance. Also, the total number of patients with poor drug compliance reduced to 24 patients (24/255: 9.4%).

Pharmacists provided clinical interventions on 60 patients. Interventions were provided not only to physicians of the same clinic but also to physicians of the same cluster and other non-Hong Kong East Clusters (non-HKEC). For interventions that had found related to other HA clusters, they were conveyed through inter-cluster pharmacists’ network.

For patients with diabetes and baseline HbA1c 6.5%, there was a more considerable improvement in the HbA1c after attending pharmacist-led MMCC (reduced by 0.22%) as compared to the patients who did not receive pharmacist-led MMCC service (reduced by 0.13%).

By involving pharmacists in the interdisciplinary team, and intra- and inter-cluster collaborations, pharmacist-led MMCC service would improve patient’s drug compliance, diabetes control, and pharmaceutical plan.